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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,753	02/08/2002	Aaron Bratslavsky	01873.000049.	9310

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FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK, NY 10112

EXAMINER


HO, ALLEN C

ART UNIT	PAPER NUMBER
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2882

DATE MAILED: 03/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/067,753	Applicant(s)  BRATSLAVSKY ET AL.	
	Examiner Allen C. Ho	Art Unit 2882	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11, 14, 15 and 17-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 14, 15 and 17-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks (U. S. Patent No. 5,001,738) in view of Carrol *et al.* (U. S. Patent No. 6,320,934 B1) and Koren (U. S. Patent No. 6,315,444 B1).

With regard to claim 1, Brooks disclosed a positioning system for dental x-ray examinations, comprising: an image sensor (11); a holder (10) bonded to the image sensor by a pressure-sensitive (inherent) adhesive (21).

However, Brooks failed to teach: (1) the image sensor is an electronic image sensor; (2) the electronic image sensor is covered by a sheath; and (3) the holder is removably bonded to the sheath by a pressure-sensitive adhesive.

Carrol *et al.* disclosed that electronic image sensors comprising CCD or CMOS active pixel sensor arrays have been adapted to dental x-ray imaging (column 1, lines 59-63).

Koren disclosed a sheath (20) for preserving the sterility of a reusable intraoral image sensor.

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It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ an electronic image sensor for intraoral dental radiography, since

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a person would be motivated to see the image in real time, and a person would be motivated to keep the cost down by using a reusable image sensor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to cover the electronic image sensor in a sheath, since a person would be motivated to preserve the sterility of a reusable intraoral image sensor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to bond the holder removably to the sheath by a pressure-sensitive adhesive, since a person would be motivated to position the holder by trial and error in order to find the best orientation for the image sensor.

With regard to claims 2 and 3, Brooks, Carrol *et al.*, and Koren disclosed the positioning system as set forth in claim 1, wherein the electronic image sensor comprises a charge-coupled device or a CMOS active pixel sensor array (Carrol *et al.*, column 1, lines 59-63).

With regard to claim 4, Brooks, Carrol *et al.*, and Koren disclosed the positioning system as set forth in claim 1, wherein the holder is bonded to the sheath at any point along a surface of the electronic image sensor (inherent).

With regard to claim 5, Brooks, Carrol *et al.*, and Koren disclosed the positioning system as set forth in claim 1, wherein the sheath is a material selected from the group consisting of paper, cotton, sponge, rubber, plastic, latex, and nylon (Koren, column 3, lines 15-18).

With regard to claim 6, Brooks, Carrol *et al.*, and Koren disclosed the positioning system as set forth in claim 1.

~~However, these references fail to teach that the adhesive is selected from the group~~  
consisting of tape, epoxy, hot melt, and sealant.

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It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use an adhesive selected from the group consisting of tape, epoxy, hot melt, and sealant, since a person would be motivated to employ an adhesive that is capable of removably bonding the holder and the image sensor as long as it is safe to the patient. Furthermore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to choose from among the known equivalents based solely on design choice absent any showing of criticality; the lack of criticality is demonstrated by applicant's claiming of a plurality of equivalent adhesive.

3. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks (U. S. Patent No. 5,001,738) in view of Carrol *et al.* (U. S. Patent No. 6,320,934 B1) and Koren (U. S. Patent No. 6,315,444 B1).

With regard to claim 7, Brooks disclosed a method for enabling a dental practitioner to position a dental image sensor (11), comprising the steps of: affixing a holder (10) having a pressure-sensitive (inherent) adhesive coating (21) to the image sensor to create a bond between the holder and the image sensor just prior to positioning the holder and the image sensor; position the holder and the image sensor within the mouth of a patient (Fig. 4); and capturing at least one dental image (inherent).

However, Brooks failed to teach a method for enabling a dental practitioner to position an electronic dental image sensor. Furthermore, Brooks fail to teach that the method comprising the steps of: (1) placing an electronic sensor in a sheath; (2) affixing a holder having a pressure-sensitive adhesive coating to the sheath to create a removable bond between the holder and the

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sheath; and (3) removing the holder from the sheath following the capture of at least one dental image.

Carrol *et al.* disclosed that electronic image sensors comprising CCD or CMOS active pixel sensor arrays have been adapted to dental x-ray imaging (column 1, lines 59-63).

Koren taught placing a reusable intraoral image sensor in a sheath (20) for preserving the sterility of the image sensor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ an electronic image sensor for intraoral dental radiography, since a person would be motivated to see the image in real time, and a person would be motivated to keep the cost down by using a reusable image sensor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to place the electronic image sensor in a sheath, since a person would be motivated to preserve the sterility of a reusable intraoral image sensor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to affix the holder having a pressure-sensitive adhesive coating to the sheath to create a removable bond between the holder and the sheath, since a person would be motivated to position the holder by trial and error in order to find the best orientation for the image sensor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to remove the holder from the sheath following the capture of at least one dental image, since a person would be motivated to dispose the sheath and prepare the image sensor for the next patient.

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With regard to claim 8, Brooks, Carrol *et al.*, and Koren disclosed the method as set forth in claim 7, wherein the holder is bonded to the sheath at any point along a surface of the electronic image sensor (inherent).

With regard to claim 9, Brooks, Carrol *et al.*, and Koren disclosed the method as set forth in claim 7, wherein the sheath is a material selected from the group consisting of paper, cotton, sponge, rubber, plastic, latex, and nylon (Koren, column 3, lines 15-18).

With regard to claim 10, Brooks, Carrol *et al.*, and Koren disclosed the positioning system as set forth in claim 7.

However, these references do not teach that the adhesive is selected from the group consisting of tape, epoxy, hot melt, and sealant.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use an adhesive selected from the group consisting of tape, epoxy, hot melt, and sealant, since a person would be motivated to employ an adhesive that is capable of removably bonding the holder and the image sensor as long as it is safe to the patient. Furthermore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to choose from among the known equivalents based solely on design choice absent any showing of criticality; the lack of criticality is demonstrated by applicant's claiming of a plurality of equivalent adhesive.

4. Claims 11, 14, 15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks (U. S. Patent No. 5,001,738) in view of Carrol *et al.* (U. S. Patent No. 6,320,934 B1).

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With regard to claim 11, Brooks disclosed a positioning system for dental x-ray examinations, comprising: an image sensor (11); and a holder bonded to the image sensor by a pressure-sensitive (inherent) adhesive (21).

However, Brooks failed to teach: (1) the image sensor is an electronic image sensor; and (2) the holder is removably bonded to the electronic image sensor by a pressure-sensitive adhesive.

Carrol *et al.* disclosed that electronic image sensors comprising CCD or CMOS active pixel sensor arrays have been adapted to dental x-ray imaging (column 1, lines 59-63).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ an electronic image sensor for intraoral dental radiography, since a person would be motivated to see the image in real time, and a person would be motivated to keep the cost down by using a reusable image sensor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to bond the holder removably to the electronic image sensor by a pressure-sensitive adhesive, since a person would be motivated to position the image sensor by trial and error in order to find the best orientation for the image sensor.

With regard to claims 14 and 15, Brooks and Carrol *et al.* disclosed the positioning system as set forth in claim 11, wherein the electronic image sensor comprises a charge-coupled device or a CMOS active pixel sensor array (Carrol *et al.*, column 1, lines 59-63).

With regard to claim 17, Brooks and Carrol *et al.* disclosed the positioning system as set forth in claim 11.

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However, these references do not teach that the adhesive is selected from the group consisting of tape, epoxy, hot melt, and sealant.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use an adhesive selected from the group consisting of tape, epoxy, hot melt, and sealant, since a person would be motivated to employ an adhesive that is capable of removably bonding the holder and the image sensor as long as it is safe to the patient. Furthermore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to choose from among the known equivalents based solely on design choice absent any showing of criticality; the lack of criticality is demonstrated by applicant's claiming of a plurality of equivalent adhesive.

5. Claims 18-21 rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks (U. S. Patent No. 5,001,738) in view of Carrol *et al.* (U. S. Patent No. 6,320,934 B1).

With regard to claim 18, Brooks disclosed a method for enabling a dental practitioner to position a dental image sensor (11), comprising the steps of: affixing a holder (10) having a pressure-sensitive (inherent) adhesive coating (21) to the image sensor to create a bond between the holder and the image sensor just prior to positioning the holder and the image sensor; position the holder and the image sensor within the mouth of a patient (Fig. 4); capturing at least one dental image (inherent).

However, Brooks failed to teach a method for enabling a dental practitioner to position an electronic dental image sensor. Furthermore, Brooks failed to teach that the method comprising the steps of: (1) affixing the holder having a pressure-sensitive adhesive coating to the electronic image sensor to create a removable bond between the holder and the electronic image sensor;

and (2) removing the holder from the electronic image sensor following the capture of at least one dental image.

Carrol *et al.* disclosed that electronic image sensors comprising CCD or CMOS active pixel sensor arrays have been adapted to dental x-ray imaging (column 1, lines 59-63).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ an electronic image sensor for intraoral dental radiography, since a person would be motivated to see the image in real time, and a person would be motivated to keep the cost down by using a reusable image sensor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to affix the holder having a pressure-sensitive adhesive coating to the electronic image sensor to create a removable bond between the holder and the electronic image sensor, since a person would be motivated to position the holder by trial and error in order to find the best orientation for the image sensor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to remove the holder from the electronic image sensor following the capture of at least one dental image, since a person would be motivated to dispose the holder and prepare the image sensor for the next patient.

With regard to claims 19 and 20, Brooks and Carrol *et al.* disclosed the method as set forth in claim 18, wherein the electronic image sensor comprises a charge-coupled device or a CMOS active pixel sensor array (Carrol *et al.*, column 1, lines 59-63).

With regard to claim 21, Brooks and Carrol *et al.* disclosed the method set forth in claim 18.

However, these references do not teach that the adhesive is selected from the group consisting of tape, epoxy, hot melt, and sealant.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use an adhesive selected from the group consisting of tape, epoxy, hot melt, and sealant, since a person would be motivated to employ an adhesive that is capable of removably bonding the holder and the image sensor as long as it is safe to the patient. Furthermore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to choose from among the known equivalents based solely on design choice absent any showing of criticality; the lack of criticality is demonstrated by applicant's claiming of a plurality of equivalent adhesive.

### *Response to Arguments*

6. Applicant's arguments filed 20 February 2004 have been fully considered but they are not persuasive.

With regard to claims 1-6, 11, 14, 15, and 17, the amendment fails to set forth additional structural limitations. Apparatus must be distinguished from the prior art in terms of structure. MPEP § 2114. Accordingly, the rejection set forth in the previous office action is being maintained.

With regard to claims 7-10 and 18-21, the method disclosed by Brooks is obviously performed by a dental practitioner since the invention is directed to dental applications.

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*Conclusion*

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen C. Ho whose telephone number is (571) 272-2491. The examiner can normally be reached on Monday - Friday from 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward J. Glick can be reached at (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Allen C. Ho  
Patent Examiner  
Art Unit 2882

ACH ACH 01.03.2004



EDWARD J. GLICK  
SUPERVISORY PATENT EXAMINER